Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

3. The Swartz type of *Lichen complanatus* at Helsingfors (reduced).
4. The Persoon type of *Ramalina rigida* (*Physcia attenuata*) at Leiden (slightly reduced).

Plate VIII.

1. The Tuckerman type of *Ramalina crinita* at Boston (nat. size).

NOTES ON MAINE HEPATICAE AND THEIR COMPARISON WITH THE HEPATICAE OF THE SAREKGEBIRGE. (Concluded)

Annie Lorenz

The higher altitude at Round Mountain Lake, as compared with the White Mts., as well as its more northern location, is evident from a glance at some of the hepatic inhabitants. *Lophozia lycopodioides* and *L. attenuata* are abundant about the edge of the lake, whereas in the White Mts. the former does not descend below 4000 ft., and the latter fortunately is chiefly confined to 2500 ft. or more, although occasionally descending much lower. *Pallavicinia Flotowiana* grew quite abundantly on the rocks at the water-line on Tree Island, both ♀ and ♂ plants, and it was mixed with *Pellia*.

There apparently were no good sphagnum bogs in the vicinity; at least, none of the inhabitants seemed to know of any, as what they called "bogs" were what are known as "stillwaters" in the Adirondacks, although sphagnum was common enough. However, just outside Eustis, on the way in, the writer noted a most promising little bog full of Andromeda, which shall be investigated next time.

The most unusual feature of the region is Big Alder falls and gorge, about 3 miles from camp. Alder Stream, the outlet of Big Island Pond, flows through about a mile of cañon, with a high falls at the upper end. The gorge runs approximately east and west, and is about 75 ft. deep. The rocks forming its walls contain some magnesium; there is a seam of low-grade asbestos crossing the road just above the gorge. This region, in fact, is southeast of the Black Lake mines in Quebec. The writer has explored only about the foot of the two paths leading respectively to the head and foot of the falls, but the results were encouraging to further exploration. On the first trip, the writer, not knowing about the Mg in the rocks, made out a list of such species as grow on granite at the Waterville, N. H., cascades, and could not at first see what had become of most of them, especially of *Marsupella.* Down the first path the only species of value was *Scapania subalpina,* new to the state. Near the second path, the writer gathered a handful of something which upon examination proved to be *Lophozia heterocolpa* (Thed.) Howe, new to New England. It was growing about tree-roots on the bank, where it was rather dry.

On a second trip down this path, in search of more *L. heterocolpa,* plenty of it was found where it grew in company with *Plagiochila, Nardia hyalina, Mnium* sp., etc., but the chief find was *Lophozia obtusa* (Lindb.) Evans, on the same bank, above the rocks, growing mixed with *Hylocomia*, *Catharinea undulata*, *Mnium*, etc. It appeared so like *L. barbata* that the writer did not even look at it until three months later, when the gibbous sinus of the leaf quickly determined its name. The whole gorge reminds one of Quechee Gulf, Vermont, and undoubtedly contains further members of the *Muelleri*-group.

Back of the camp was a wet granite ledge bearing a heavy crop of *Lophozia quinquedentata* ♂, *L. barbata* c. per., and *Marsupella emarginata*, the only station noted for the latter, which, although easily accounted for, yet seems strange to one accustomed to its ubiquitousness in the White Mts. *Sphenolobus Hellerianus* c. fr. was collected near here on a tremendous old log; also *Frullania Oakesiana*, but this, while characteristically alpine, descends at Waterville, N. H., to 1550 ft.

There were no *Ricciae* noted, not even *R. Sullivantii*, but the only suitable place for that was on the Big Island Pond buckboard-road, where grew *Blasia* and *Anthoceros levis*, the only stations seen.

Of the *Marchantiaceae*, only *Marchantia* and *Conocephalum* were seen. *Fossombronia*, immature, but probably *F. foveolata*, was abundant. *Chiloscyphus fragilis* (Roth.) Schiffn. was in a cold spring, not warm still water, as Schiffner says, although it also grew luxuriantly in the warmer water about the beaver pond. *Scapania nemorosa* was rare, on account of the lime; *S. apiculata* grew below the house spring, on a rotten log, in company with *Riccardia palmata*. Neither *Mylia Taylori* nor *Diplophylleia taxifolia* were seen at all.

The mosses were not examined, but doubtless there are plenty of equally attractive species to be found.

In looking over Arnell and Jensen's Moose des Sarekgebietes, 1907–1910, some curious comparisons with this Maine flora presented themselves. Of the 101 species collected by Arnell and Jensen on that expedition, 63 are common to New England, 51 are found in Maine, and it were not unreasonable to expect to find a dozen more. Examining the table of frequency, the *Lophozias* ran curiously parallel. There were 22 against 23 in N. E., with 14 common to Maine. Ten of these species were even in their rate of frequency, but *L. inflata*, very common there, was not collected at Round Mountain, while our ubiquitous *L. attenuata* they found only once! Arnell says of *L. obtusa:* "This curiously enough only recently better-observed species has proved itself in its Swedish distribution ever more as a boreal species."

While the Sarekgebirge are so far off the beaten track that they are not even mentioned in Baedeker, the authors obviously enjoyed themselves most thoroughly on that expedition. The Sarekgebiet is largely a granite region, with limestone in one corner, while Round Mountain has the least flavor of lime, with Mg down in the gorge. *Marsupella emarginata* was rare in both cases. Of *Sphenolobus*, only *S. minutus* was common to both, and that infrequent. *Scapania nemorosa* was lacking from this list, as it was too far north, *Scap. subalpina* was common, also a number of arctic-alpine species were reported. *Odontoschisma elongatum* (Lindb.) E., which likewise occurs in Maine, was one of the two species found, the other being *O. Macounii* (Aust.) Underw. No

Frullaniae were noted, probably because the scrub was not large enough to afford a foothold, and rotten-log species were rare, as in most European reports.

While it is perhaps hardly valuable, it may be interesting to compare the N. E. and Maine lists with some of the local north-European floras. Of the 216 species given in *Kaalaas*' Norwegian list, 111 are common to N. E., 89 to Maine, 91 to N. H. In Lindberg & Arnell's Siberian list, 96 species in all, 72 are common to N. E., 58 to Maine, 62 to N. H. In *Bernet*, Hépatiques' de la Sud-ouest de la Suisse, 142 species in all, 87 are common to N. E., 70 to Maine, 78 to N. H. In *Macvicar*, Handbook of British Hepatics, 274 species in all, 128 are common to N. E., 102 to Maine, 104 to N. H.

It is fairer to compare the Sarekgebirge and Siberian lists with Maine, as they are records of single trips, while the other lists are those of carefully-explored countries. A beginning only has been made in Maine. It will be observed that in each case, more species are credited to N. H. than to Maine. This is no reflection upon the wealth of the Maine flora, but rather to her credit, that with so little systematic collecting, the list so nearly approaches that of N. H., which has been visited and revisited by every collector for decades, especially the Presidential Range.

The notes given above show the highly boreal character of the Round Mountain Lake region, and give hope for many further species which may await enrollment upon the N. E. list.

HARTFORD, CONN., May, 1913.

AN INTERESTING MOSS

H. S. JEWETT, M.D.

On Dec. 4, 1913, in the water, and upon the limestone walls of a spring, and its overflow brook, in Neff Park, Yellow Springs, Greene Co., Ohio, I found a number of mats of moss. The entire southwest section of Ohio has been denuded to the lower beds of the Upper Silurian epoch, hence the whole region rests on limestone, and all our water, whether river, creek, brook, or spring ,is strongly calcareous, and the forests are all deciduous.

Some of the moss mats were so far above the water in the spring that their water supply was derived entirely from rain and dew; these were all *Amblystegium filicinum* (L.) De Not. Seven or eight of the mats were growing on the stones at the waterline, extending four to ten inches upwards and three or more inches downwards into the water, and it is in these partly submerged mats that the interest centers. As all these mats proved to be alike in moss contents and arrangement, I shall divide them into three zones to make their description easy.

Zone 1 comprises all of the mats *below* the waterline; *i. e.* constantly submerged, including a few tufts growing on the bottom of the spring and having, apparently, no connection with the mats on the sides of the spring.